

Listing of Claims

What is claimed is:

CLAIMS:

52. (Previously amended) A method for device management in a grouped server system, comprising:

creating a request to control a device on a desktop unit from a device service on at least one of a first server and a second server;

transferring said request from a first device manager in said first server to a second device manager in said second sever, said first device manager being coupled to said device service;

allocating said device to said device service via said second device manager;
and

informing said first device manager of said allocation via said second device manager;
wherein said device service controls said device by implementing a complete device driver for said device.

53. (Previously presented) The method of Claim 52, wherein said request comprises desired capabilities for said device.

54. (Previously amended) The method of Claim 52, wherein said first server and said second server operate in a group, further comprising:

establishing a first communication path between said first device manager and said second device manager; and

establishing a second communication path between said device on said desktop unit and said second device manager.

55. (Previously presented) The method of Claim 54, wherein said establishing said first communication path comprises receiving a group list, said group list comprising grouping information of device managers in said group.

56. (Previously presented) The method of Claim 54, wherein said establishing said second communication path comprises said desktop unit arbitrarily connecting to said second device manager.

57. (Previously presented) The method of Claim 52, further comprising:
creating a first device list via said first device manager; and
creating a second device list via said second device manager;
wherein said first device list is segregated from said second device list.

58. (Previously presented) The method of Claim 57, wherein said first device list comprises device records for device managed by said first device manager.

59. (Previously presented) The method of Claim 57, wherein said first device list comprises device records for devices managed by both of said first device manager and said second device manager and wherein said second device list comprises device records for devices managed by said second device manager.

60. (Previously presented) The method of Claim 57, wherein said first device list comprises device records for devices managed by said first device manager and peer device managers in said grouped server system.

61. (Previously presented) The method of Claim 60, wherein said grouped sever system comprises said first device manager, said second device manager, said peer device managers, said desktop unit, and a plurality of other desktop units all coupled to each other via an interconnect, further comprising:

identifying which device manager manages which device.

62. (Previously amended) The method of any Claim 52, further comprising:
creating a finder in accordance with said request via said first device manager;
wherein said finder comprises a pattern of registered devices to be controlled by said device service.

63. (Previously amended) The method of Claim 62, further comprising:
searching a first device list coupled to said first device manager for a device matching said registered devices of said finder.

64. (Previously presented) The method of Claim 63, further comprising:
storing said finder in said first server.

65. (Currently amended) The method of Claim 64, wherein said transferring said request to said second device manager comprises said second device manager creating a second finder in accordance with said request.

66. (Previously amended) The method of Claim 65, further comprising:

searching a second device list coupled to said second device manager for a device

matching said second finder.

67. (Previously amended) The method of Claim 65, further comprising:

storing said second finder locally in said second server.

68. (Previously presented) The method of Claim 52, further comprising:

determining which device manager manages said device; and

informing said device service of said managing device manager.

69. (Previously amended) The method of Claim 52, wherein said desktop unit

does not have built-in knowledge to directly control said device and wherein a user of said

desktop unit needs said device service to operate said device on said desktop unit.

70. (Previously amended) The method of Claim 52, further comprising:

creating a first device list in said first server via said first device manager; and

creating a second device list in said second server via said second device manager;

time stamping a first time-stamp on said first device list and a second time-stamp on

said second device list said transferring said request to said second device manager comprises

said second device manager replacing said second device list in said second server by said

first device list in said first server if said second time-stamp is earlier than said first time-

stamp.

71. (Previously amended) The method of Claim 70, wherein said time stamping occurs when said first and second time lists are created.

72. (Previously presented) The method of Claim 70, further comprising:
maintaining a universal clock among all servers in said grouped server system;
wherein said time stamping is based on said universal clock.

73. (Previously presented) The method of Claim 52, further comprising:
determining which device manager manages said device; and
forwarding said request to said determined device manager that manages said device.

74. (Previously presented) The method of Claim 73, wherein said determined device manager that manages said device is located in one server and said service is located in another server.

75. (Previously presented) The method of Claim 73, wherein said first server comprises a first device list, said first device list comprising a device record for said device, further comprising:

transferring said device record to said second device manager in said second server;
and

updating a second device list to include said device record via said second device manager.

76. (Previously presented) The method of Claim 75, further comprising:

matching said request with said device record in said second device list;
wherein said determining which device manager manages said device is determined from said second device list.

77. (Previously presented) The method of Claim 52, further comprising:
generated a device list for said first manager and said second device manager;
wherein said device list comprises devices managed by a device manager; and
wherein said device list further comprises devices managed by peer device managers,
further comprising:
transferring device data between said peer device managers.

78. (Previously presented) The method of Claim 52, further comprising:
maintaining a persistent connection between said desktop unit and a single device manager.

79. (Previously presented) The method of Claim 78, further comprising:
establishing a first communication path between said desktop unit and said first device manager; and
terminating said first communication path; and
establishing a second communication path between said desktop unit and said second device manager when an event occurs.

80. (Previously presented) The method of Claim 79, wherein said event comprises resetting said desktop unit.

81. (Previously presented) The method of Claim 79, wherein said event comprises failure of said first device manager.

82. (Previously amended) A grouped server system, comprising:
an interconnect;
a plurality of servers, each of said servers having a device manager;
a plurality of device services for implementing device drivers located on said servers;
a plurality of desktop units coupled to said servers via said interconnect, each desktop unit being coupled to one of said device managers; and
a plurality of peripheral devices located on said desktop units;
wherein said device managers on said servers broker controls of said peripheral devices on said desktop units by said device services on said servers; and
wherein said device managers are operating in a group.

83. (Previously amended) The grouped server system of Claim 82, wherein each of said device managers is coupled to a device list and wherein said device lists are segregated from each.

84. (Previously presented) The grouped server system of Claim 83, wherein each of said device lists comprises data of peripheral devices managed by said device manager coupled to said device list.

85. (Previously presented) The grouped server system of Claim 84, wherein said device list further comprises data of devices managed by peer device managers coupled to said device list.

86. (Previously amended) The grouped server system of Claim 83, further comprising a universal time clock for time stamping said device list as it is generated to ensure that said device list coupled to each of said device managers is not outdated.

87. (Previously presented) The grouped server system of Claim 82, wherein each of said device managers can be used to broker a peripheral device managed by a first device manager to a device service coupled to a peer device manager.

88. (Previously amended) The grouped server system Claim 82, further comprising a finder comprising scoping rules for a type of said peripheral devices from at least one of said device services.

89. (Previously presented) The grouped server system Claim 82, wherein at least one of said device services is coupled to at least one of said device managers, said at least one of said device services communicating a first device report and a first allocation request with said at least one of said device managers.

90. (Previously amended) The grouped server system of Claim 89, wherein said at least one of said device services is coupled to at least one of said plurality of desktop units, said at least one of said device services communicating device data of at least one said

plurality of peripheral devices with said at least one of said plurality of desktop units via said at least one of said device managers.

91. (Previously presented) The grouped server system of Claim 90, wherein said at least one of the said device managers is coupled to said at least one of said plurality of desktop units, said at least one of said device managers communicating a second device report and a second allocation request with said at least one of said plurality of desktop units.

92. (Previously amended) The grouped server system Claim 82, wherein each of said plurality of device serves can implement a complete device driver, wherein each of said device managers can provide said device driver, wherein said device driver remotely controls at least one of said peripheral devices managed by other device managers in said grouped server system, wherein each of said device managers can maintain a first database comprising device data and a second database comprising scoping rules for said at least one peripheral device from at least one of said device services, wherein each of said device managers can search for a match between said first database and said second database, and wherein each of said device managers can forward a request to other device managers in said grouped server system if no match is found.